## **ABSTRACT**

A method of fluorination comprising reacting monosaccharides, oligosaccharides, polysaccharides, composite saccharides formed by bonding of these saccharides with proteins and lipids and saccharides having polyalcohols, aldehydes, ketones and acids of the polyalcohols, and derivatives and condensates of these compounds with a fluorinating agent represented by general formula (I) thermally or under irradiation with microwave or an electromagnetic wave having a wavelength around the microwave region. In accordance with the method, the fluorination at a selected position can be conducted safely at a temperature in the range of 150 to 200°C where the reaction is difficult in accordance with The above method comprising the irradiation conventional methods. with microwave or an electromagnetic wave having a wavelength around the microwave region can be applied to substrates other than saccharides. When a complex compound comprising HF and a base is reacted under irradiation with microwave, fluorination at a specific position which is difficult in accordance with conventional methods proceeds highly selectively, efficiently in a short time and safely.

$$R^0 - C - Y < R^1$$

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**(I)**